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ABSTRACT

The interactive multimedia application described here attempts to provide learners and teachers with a common frame of reference for communicating about visual media. The system is based on a list of concepts related to composition, and illustrates those concepts with photographs, paintings, graphic designs, and motion picture scenes. The ability to read the meaning of a picture is valuable. Familiarity with pictorial composition and the vocabulary used to communicate about it will increase our awareness as consumers of information, preventing victimization and manipulation by visual imagery. As illustrated through this project, attention to composition provides visual literacy educators with a starting point for guiding learners of all ages toward the necessary skills of reading and writing visual images. Through the analysis of compositional elements, students can evaluate the choices made by professional visual designers. Students capable of integrating these analytical skills into their own work will be more effective visual communicators. (Contains 11 references.) (MAS)

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Learning Visual Design Through Hypermedia: Pathways to Visual Literacy

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Visual literacy is difficult to separate from other communication skills, especially because in the modern world we are all the targets of a large volume of visual stimuli. Much of what we see is intentionally designed to convince, cajole, or sell. Visual creations are intended to instruct or to please, or to do both, following Horace's description of the purpose of poetry and the theater (Rhys, 1911). The challenge for visual literacy educators is to help enable others to understand the overt messages in visual constructions, *and* to analyze the less obvious messages that are carried by the images.

The interactive multimedia application described herein attempts to provide learners and teachers with a common frame of reference for communicating about visual media. Developed in *Macromind® Director™*, this system is based on a list of concepts related to composition, and illustrates those concepts with photographs, paintings, graphic designs, and motion picture scenes.

This system evolved from an earlier *HyperCard®* demonstration which used black and white photographs and graphics, many of which were copyrighted. Feedback from the use of the system in a series of courses convinced the authors to expand the program through the use of *Director™* and its capabilities for color visuals and increased interactivity. The present version employs only images for which copyright is held within our university community, thus eliminating copyright questions.

After brief introductory screens users are presented with a list of concepts and a text field that explains the system and basic navigation methods. A button bar at the bottom of each screen allows choices of examples for each concept or other navigation through the interactions. Screens are laid out consistently to aid learners in connecting the various sections of the application. Each screen has a graphics field and a text field in which related concepts may appear as part of the explanation of the screen's topic. Clicking the mouse on words or phrases in **bold** type will play the screen(s) that correspond to the bold text, giving the user access to the examples attendant to each concept (Figure 1). Future versions of the system will include concepts and terminology from other disciplines, drawing analogies among the various vocabularies.

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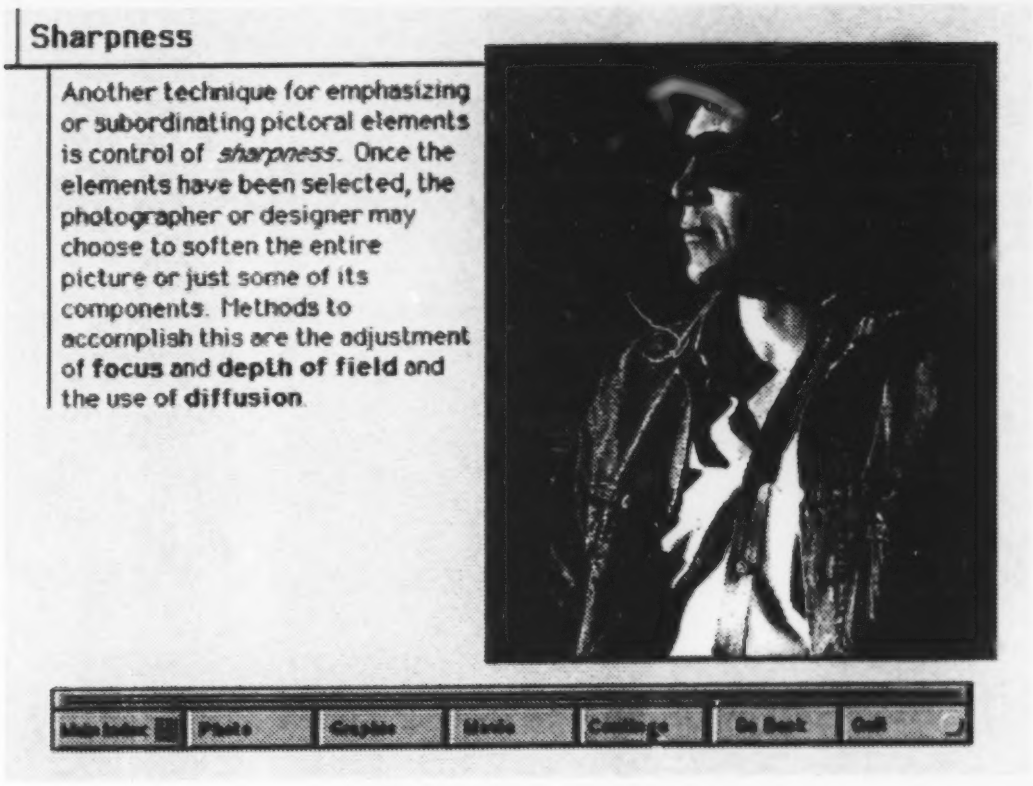
Sharpness
Another technique for emphasizing or subordinating pictoral elements is control of sharpness. Once the elements have been selected, the photographer or designer may choose to soften the entire picture or just some of its components. Methods to accomplish this are the adjustment of focus and depth of field and the use of diffusion.

Figure 1

Visual literacy is a necessity for learners of all ages. As residents of the information society which is characterized by digitized representations of knowledge and dominated by the mass-media, we must learn to analyze and understand what we see. Unfortunately, the American educational system has not adequately addressed this need.

Despite its 14 year history as a more or less formal movement in education, 'visual literacy' has yet to rate more than a passing glance from a majority of educators. As a result, it has remained on the periphery of education gently bobbing up and down in the swells of broader and seemingly more significant educational waves. As a discipline, it suffers from the lack of a commonly accepted definition and mainstream sponsorship. It is beset both from within and without by doubts as to the appropriateness of use of such terms as 'literacy' and 'language'. In fact , the term 'visual literacy' has become a catchall label attached to any project with a visual component however uncertain its methodology or outcomes. At an ever more fundamental level, some critics question whether 'seeing' can be taught while others suggest that, even if it can, there is really little necessity to do so. And yet, despite its rather ambivalent ride, visual literacy, unlike other educational waves, has not yet crashed upon the beach (Eshpeter and DeLeeuw, 1983).

Most instructors no longer question whether they should teach the content, but rather how to teach it. Of central concern is developing a functional vocabulary common to teachers and learners. It is the present authors' belief that a solid beginning can be made using terms usually employed to describe concepts in photographic and motion picture composition and construction.

Our culture constantly presents (assaults?) us with visual images that have been carefully designed, although their accidental juxtaposition may not have been. The evolution of presentation technologies and our own increased access to those technologies ensure that the sheer volume of interactions with artificial visual stimuli in our lives will continue to increase. The challenge for educators is to be able to differentiate types and structures of visual stimuli and to read the overt *and* covert messages that visuals carry.

Still photographs, singularly or as components of other media, are perhaps the most prevalent form of modern visual communication. "We no longer live in a logocracy–a culture based on verbal texts–but in a culture characterized by omnipresent visual images in forms such as television, film, billboards, architecture, and dress" (Foss and Kanengieter, 1992). We absorb visual images from photographs every day through newspapers, magazines, advertisements, and billboards. Moving pictures come as television, cinema, videos, and computer images. Not only do we 'read' these types of information constantly, but many of us possess the means to create our own images. Photography and video are common hobbies in much of the world. We use a potpourri of camera makes, models, and formats to preserve memories of quotidian existence and of special events such as vacations, weddings, graduations and other ceremonial occasions. Photographs from personal snapshots to Ansel Adams's, Margaret Bourke-White's, or Diane Arbus's masterpieces illustrate a broad range of experiences and skills. A photo is a very familiar visual frame, a still image from which we draw meaning.

Access to improving technologies makes it increasingly likely that people will be creating and *manipulating* their own images "for fun and profit." Analysis such as outlined here will help to empower potential image-makers by increasing their insight into the attributes of the tools available.

The histories of at least three or four (sub)cultures come into play in any analysis of visual messages in an educational context. The things and people represented, the creators of the imagery, the teacher/guide, and the learners are all potentially from different (sub)cultures. As Timberg and Himmelstein (1989) demonstrated there are often many cultures and subcultures represented within a group of learners . The perspectives and contexts of each group must be explored in order to gain understanding of visuals experienced in the learning environment. Some sense of their respective cultural histories will allow teacher and learners to connect and clash constructively with the examined work.

Each visual media instructor has a favorite arsenal of images with which to teach the concepts that our project presents. The process usually involves slide shows, video and film viewings, reading and looking assignments, or some combi-

nation of these and other activities. This project presents a temporally economical approach to developing a common image base that can be referenced throughout a course or workshop.

In order to understand visuals, their construction, and their power, an individual must be able to recognize where on the continuum from archival recording to non-referential abstraction a particular visual experience lies. And lie it might. Even the most seemingly realistic motion picture sequence or the most effective news photo lives in the context created by the image maker and in the circumstances of its presentation.

The ability to "read" the meaning of a picture is valuable, especially in that many visuals are created to persuade us. Visual persuasion often can be much more subtle than its verbal counterparts. Familiarity with pictorial composition and the vocabularies used to communicate about it will allow us to be more active and aware as consumers of information, preventing us from becoming victims of manipulators of visual imagery. McIsaac presents a strong example of the dangers.

As long as male producers, male photographers and male directors continue to use photographic elements such as camera angle, body position, and lighting to perpetuate the stereotype of women as unintelligent and passive sex-objects, women will not be taken seriously in the work force...However, in an industry such as mass media which has been historically patriarchal, new awareness must be gained. It is in the subtle manipulations of the media that the message is created, and it is to this area of visual language that we must now turn our attention. (McIsaac, 1984).

Critical viewing skills are not just a personal necessity; they are a societal responsibility. By developing visual awareness, we become more cognizant of social issues which deserve our attention, such as class, gender, and racial stereotyping.

An effective image grabs the viewer and says "this is what I am," and each viewer processes the information in the image through the filter of her/his frame of reference and will "know" what the image is saying. Accepting this first take as the truth of an image is often as far as many viewers ever go, and, especially in the case of entertainment, conscious analysis is believed to ruin the experience.

Some critics of the visual literacy movement have proclaimed that analysis of images is a simplistic activity because realistic pictures reveal their intent and meaning almost immediately. On the contrary, analysis and interpretation should be a complex and thoughtful process precisely because visual imagery appears to be so straightforward..

Photography expands by <u>ratio difficilis</u> (Eco, 1976) the continuum of material ready for semiosis. It quotes, and it quotes profusely, and through the mere act of quoting transforms the glance into a gaze. The very act of quoting a detail suggests its significance... "Theoretically, a perfect photograph is absolutely inexhaustible." (Holmes, 1859, p. 247) By its practice the camera suggested at a theoretical level that the very act of seeing was semiotic. (Biocca, 1986).

Learner participation will quickly clue a teacher to the frames of reference of a group of students so that analysis can be made concrete by relating to students' prior knowledge. Correlating their prior knowledge to traditional aesthetic perspectives and to visuals being discussed will help students to expand their own visual horizons and more easily understand new stimuli as they are encountered.

The internal logic of visuals is often foreign to some viewers. Discovering such logic can lead a learning group to insights about the visuals and about their own perspectives. How all the elements within visual constructions interact serves to portray a more or less complete image of a world. Dissonance among the learners and between the learners' experiences and the visual presentations can highlight points of interest that may lead to better discussions and further understanding.

> *If you look at a fern and merely say, "Yes, that's a fern", you may not be seeing past the old, familiar label of its name. But if you really 'see' a fern, you will notice triangularity, individual leaf fibres, various shades of green, its sway and dance before the wind. If you put your eyes close to the fern, so close that you cannot focus on the plant at all, but only on objects beyond it, the fern will become a nebulous green haze which drifts across the background scene. You will have found dimensions and hidden beauty not included in the usual definition of the fern, while learning for yourself the difference between looking and seeing* (Patterson, 1979, as cited in Eshpeter et al, 1983).

A teacher can investigate an image or sequence, aiding learners in deconstructing what they see. Dividing visuals into their technical elements illuminates the kinds of control exercised by clients, creators, and technicians. Students can then build organizational plans for their own imagery, referring to this knowledge base.

When students learn to communicate verbally about how creators convey ideas, moods, and atmosphere through composition, they are describing concepts with broad applications. The learner can apply these guidelines to any visual presentation. Command of a vocabulary which aids in understanding of composition therefore produces a more visually literate student.

Composition as the control of the elements within a visual construction has been defined as "the act of combining parts and elements to form a *whole* (emphasis ours)" (Goldsmith, 1992). From this definition it is clear that the importance of compositional control is common across media. Many of the guidelines to good composition were codified by classical artists during the Renaissance and remain as standards in fine, popular, and practical arts.

Photography and motion pictures have moved away from rigid rule-keeping, but many of the standards of good composition are still applied. Designers in other visual media also commonly implement these principles. Using design concepts common to many visual media and illustrating them with examples that are common in our society (as featured in the multimedia application described elsewhere in this paper) provides a relevant framework for teaching visual literacy.

Although only a few gifted individuals are born with the potential to become great artists or photographers, virtually everyone has some sense of design or composition. Unfortunately, it's often neglected or suppressed by an educational system that places too little value on visual literacy. However, as most teachers of art and photography agree, it's a skill that can be revitalized at any age if you try (Goldsmith, 1992).

As illustrated through this project, attention to composition provides visual literacy educators with a starting point for guiding learners of all ages toward the necessary skills for "reading and writing" visual images. "Looking at pictures--photographs, paintings, other forms of visual art--can imprint a sense of effective composition, a feeling for visual structure, onto your mind's eye and into your subconscious" (Goldsmith, 1992). Through the analysis of compositional elements, students across the curriculum can evaluate the choices made by professional visual designers as realized in their creations. Students capable of integrating these analytical skills into their own work will be more effective visual communicators.

Having minced the visual experience into thousands of tiny components, chopping away from every available angle, there is a danger that fun, basic understanding, and personal engagement with the whole will all be lost. To combat the possibility that learners will become jaded cynical nit pickers, the examination of a visual work must make at least one loop in the spiral of understanding.

It would be a disservice to learners to disassemble visual presentations to the point where fun is banished from the experience. To help learners get the most from visuals, it is important to aid them in learning to reconstruct messages and reintegrate elements into a coherent whole which, while better understood, should be no less enjoyable.

The elements of a visual image, series of images, or motion sequence can be deftly separated using the resources discussed herein. Insights into ourselves, our cultures, and our representations of reality can help prepare us to better understand our mediated experiences. If we are to truly understand an interaction with visual media, we must be able to *experience* it, illuminated and enhanced by our explorations. To exercise their developing skills, learners should be encouraged to revisit familiar visuals thus, enlarging their perspectives on what they see and perceive. Ideally, the tools built through this process will enable students and teachers to filter more effectively and make wiser choices about allocating their attentions. Having chosen what to attend to, we will be able to enjoy experiences that we deem valuable, appreciating the craft and thought of the creators and better integrating the messages into our lives. When we accidentally find ourselves witness to a visual event, such broadened perspectives will allow us to learn from what we see, in terms of what it means and how it was created.

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